

1. An apparatus for extending the functionality of a defective floppy diskette controller, the apparatus comprising a computer readable medium storing executable and operational data structures, the data structures comprising:

a determination module for identifying a hardware resource associated with a computer system;

a welding module for inseparably connecting a persistent software layer to the hardware resource.

2. The apparatus of claim 1, wherein the data structures further comprise a defense module for resisting attempts by other software to unweld the persistent software layer from the hardware resource.

3. The apparatus of claim 1, wherein the data structures further comprise a function module for performing a desired function whenever the hardware resource is accessed by the computer system.

4. The apparatus of claim 3, wherein the function module is configured to control the hardware resource to provide a function otherwise unavailable from the hardware resource as manufactured.

5. The apparatus of claim 1, wherein the data structures further comprise an unweld module for disconnecting the persistent software layer from the hardware resource.

6. The apparatus of claim 5, wherein the unweld module is configured to be embedded in the welding module.

7. A computer readable medium storing data structures embodying steps for effecting a method comprising:

providing a computer system comprising a processor operably connected to a first hardware resource;

installing a driver corresponding to the first hardware resource, and including a resource identifier for identifying available hardware resources;

identifying the processor, by the resource identifier, as the first hardware resource;

executing on the processor a welder to inseparably connecting a persistent software layer.

8. The computer readable medium of claim 7, wherein the method further comprises:

accessing, by the processor, a first hardware interface; and

automatically engaging the persistent software layer upon accessing, by the processor, the hardware interface.

9. The computer readable medium of claim 8, wherein the method further comprises providing a defense module for responding to attempts to unweld the persistent software layer from the first hardware interface.

5           10. The computer readable medium of claim 9, wherein the method further comprises providing a controller for controlling the first hardware resource.

10           11. The computer readable medium of claim 10, wherein the persistent software layer further comprises a function module, executable to perform an extension function, the extension function being beyond the inherent functionality of the controller.

15           12. The computer readable medium of claim 11, wherein the extension function further comprises a function lock for overriding requests from other software to reconfigure the functionality of the first hardware resource.

          13. The computer readable medium of claim 11, wherein the function module is configured to perform a function selected from detection and correction of a hardware defect in the controller.

20           14. The computer readable medium of claim 11, wherein the function module is configured to extend the functional capability of at least one of the first hardware resource and the controller, without replacement thereof.

15. The computer readable medium of claim 13, wherein the function module is configured to monitor at least one of access and control of at least one of the first hardware device and the controller.

16. A method for welding a software layer to a hardware layer in a computer system having hardware interfaces, the method comprising:

providing a computer system comprising a processor operably connected to a first hardware resource;

5 providing a first hardware interface corresponding to the first hardware resource;

installing a driver corresponding to the first hardware resource, and including a resource identifier for identifying available hardware resources;

identifying the processor, by the resource identifier, as the first hardware resource;

10 executing on the processor a welder for inseparably connecting a persistent software layer to the first hardware resource.

17. The method of claim 16, further comprising:

accessing, by the processor, the first hardware interface; and

15 automatically engaging the persistent software layer upon accessing, by the processor, the hardware interface.

18. The method of claim 16, wherein the persistent software layer further comprises a defense module for responding to attempts to unweld the persistent software layer from the first hardware interface.

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19. The method of claim 16, further comprising providing a controller for controlling the first hardware resource.

20. The method of claim 19, wherein the persistent software layer further comprises a function module executable on the processor for performing an extension function, the extension function being beyond the inherent functionality of the controller.

21. The method of claim 20 wherein the extension function further comprises a function lock for overriding requests from other software to reconfigure the functionality of the first hardware resource.

22. The method of claim 21, wherein the function module is configured to perform a function selected from detection and correction of a hardware defect in the controller.

23. The method of claim 20, wherein the function module is configured to extend the functional capability of at least one of the first hardware resource and the controller, without replacement thereof.

24. The method of claim 20, wherein the function module is configured to monitor at least one of access and control of at least one of the first hardware device and the controller.

25. The method of claim 16, wherein inseparably connecting further comprises rendering the connection unbreakable by other than the welder.

5           26. The method of claim 16, wherein inseparably connecting further comprises rendering substantially impossible an insertion of an executable between the first hardware resource and the persistent software layer.